Pier pressure: is there an alternative to the \$45 million Navy Pier Flyover?

BY STEVEN VANCE ON JUNE 28, 2012 · 44 COMMENTS AND 0 REACTIONS



Congestion on the Lakefront Trail at the Lake Shore Drive south bridge house leads to frustrating experiences, especially for those on wheels.

The section of the Lakefront Trail between Randolph Street and Ohio Street Beach cannot comfortably handle the traffic present in the many congested areas around the Lake Shore Drive bridge, Navy Pier, and Jane Addams Memorial Park. The narrow width, awkward curves, and blind spots make for highly dissatisfied trail users, that includes the gamut of Chicagoans and visitors, using Segways, four-wheel pedal cars, skates, strollers, bicycles, wheelchairs, or their own feet. There's not enough room for the number of people who pass through here. This section of the trail is used by individuals on work and social trips, as well as groups meandering from park to park along Lake Michigan. The City plans to build an elevated structure, called the Navy Pier Flyover, to bypass

the congestion, but at an extreme cost. We propose a different project to meet the same goals of comfortable passage on the path with a much smaller price tag.

The main problem areas are at the north and south ends of the Lake Shore Drive bridge, on the sidewalk between the bridge and Grand Avenue, at the blind spot where the trail meets Grand at the corner of Lakepoint Tower's parking garage, and in the congested area inside Jane Addams Memorial Park and Ohio Street Beach. The Navy Pier Flyover is a planned structure on the Lakefront Trail that will "fly over" these trouble spots. The Lakefront Trail path as it currently exists will remain open for those who don't want to use the flyover. Additionally, an "off ramp" will be built from the overpass to Navy Pier alongside the Ogden Slip – this part is superfluous to addressing path congestion, but may be useful for some path users. The project does not sufficiently address congestion at Ohio Street Beach.

The Navy Pier Flyover is going to cost a jaw-dropping \$45 million. To put this in perspective, in 2008 the Portland, Oregon, Bureau of Transportation estimated the entire replacement cost of its then 300-mile bike network at about \$60 million. We propose an alternative solution to combat the same problems at a much lower cost, and with a far quicker construction time.

The Chicago Department of Transportation (CDOT), along with its consultants, have designed and will manage construction of the overpass. CDOT spokesman Pete Scales declined an interview request (saying "there isn't anything new to report on the project") and didn't respond to our request for documents that would describe the public outreach process and Alternatives Analysis (a study where alternatives to the status quo are compared and a final alternative is selected*).

Timeliness is essential in understanding and discussing alternative solutions: last Thursday, CDOT commissioner Gabe Klein mentioned at a panel discussion hosted by the Nature Museum that the Navy Pier Flyover would begin construction this year. That was something new to report; he also mentioned it would cost \$56 million. We double checked the cost with Scales, who replied that the cost is \$44.5 million and is funded by the State of Illinois and Congestion Mitigation and Air Quality (CMAQ) grants from the Federal Highway Administration (FHWA). CDOT plans to solicit construction bids later this year, but construction "would not likely begin until spring 2013", Scales said.

Here are other bike projects the city could complete for about \$45 million:

- Give tens of thousands of high school students a bike, the tools and know-how to fix it, and mobility education.
- Run Bike The Drive and Open Streets every weekend for years.
- A bike sharing system twice as large as what is currently planned for Chicago (3,000 bikes at 300 stations for \$21 million, 2x)
- 264 miles of protected bike lanes (double the number of miles that CDOT proposes to have built by 2015)
- 93 miles of resurfaced protected bike lanes (only the bike lane portion of a street that needs new pavement would be resurfaced)
- The Bloomingdale Trail's basic construction, "engineering and construction to build a safe, accessible park from end-to-end" (\$46 million)



Elevated structures are costly. The Navy Pier Flyover would climb up and run next to Lake Shore Drive, between the highway and the Lakepoint Tower parking garage and roof deck. Photo from CDOT publication (.pdf).

An alternative proposal

The alternative proposed here would take less time to construct, cost a lot less, and wouldn't require long and roundabout detours or lane closures for cars and transit buses on Lake Shore Drive. The proposal is divided into two components: Lake Shore Drive Bridge and Lower Lake Shore Drive (Bridge and Road), and Intersections.



Open an interactive version of this map, or view the embedded map below.



When the Lake Shore Drive bridge sidewalk was damaged, CDOT created a detour on the roadway deck of Lower Lake Shore Drive that was wide and safe. This view is looking south. See a photo of the missing sidewalk.

Bridge and Road

Modifying the Bridge and Road is the easy part because it's already been done before. Instead of breaking through the walls of the bridge house and building a widened sidewalk to the east side of the existing sidewalk (as would happen in the Navy Pier Flyover project), a travel lane on Lower Lake Shore Drive would be converted to Lakefront Trail use (with preferential use for people bicycling; slower traffic would remain on the sidewalk). Multiple observations have revealed that relatively few people drive on Lower Lake Shore Drive in this area.

CDOT converted a travel lane to path use in 2009 after a portion of the Bridge's sidewalk fell or was removed (see photos of the situation). Crews placed metal plates on the open grate bridge deck and constructed a guardrail between the two northbound lanes (bolted into the bridge deck). To divert trail traffic to this bypass, workers broke down a piece of concrete wall on the south end of the Bridge and built an asphalt ramp back up to the sidewalk on the north end of the Bridge.

We propose doing that again. Metal plates (of the non-slip variety) could be used, or concrete infill (like Randolph Street bridge, or the revamped Halsted Street bridge at Chicago Avenue). The divider should be tall, permanent, and of the strongest sort.



Looking north at the detour where there's a temporary ramp back onto the sidewalk (in the background), north of the Lake Shore Drive bridge.



Looking south at the detour. The photo shows the travel lane that would be converted to Lakefront Trail use.



A rendering of the travel lane on Lower Lake Shore Drive that has been converted to bike use. The sidewalk remains. The rendering does not show a barrier that would be installed, to extend the barrier seen on the bridge.

This alternative proposes modifying three intersections: (1) the Lakefront Trail with Grand Avenue, (2) the Lakefront Trail with Illinois Street, and (3) the three-way split of the Lakefront Trail within Jane Addams Memorial Park (Park). With an entire 10-feet-wide travel lane devoted to Lakefront Trail bike traffic, the intersections at Grand Avenue and Illinois Streets would need to be redesigned.

Intersection 1: Lakefront Trail with Illinois Street

Currently, path users walk and roll on the sidewalk and follow pedestrian signals at Illinois Street. People moving at higher speeds would use the converted Lake Shore Drive lane and those moving at slower speeds would use the sidewalk, where everyone travels now. New signals, with bicycle heads, would be installed for those using the converted lane at Illinois Street.

Intersection 2: Lakefront Trail with Grand Avenue

The lane conversion would stretch from south of the bridge to Grand Avenue (the westbound road). Grand Avenue is the second intersection where path users walk and roll on the sidewalk and follow pedestrians signals. To facilitate a safer and more comfortable ride from the Park to the converted lane, the traffic island and automobile slip lane would be removed to create a shallower slope from the street level to park level, where Lakefront Trail users on the converted lane would rejoin the existing path. This component is seen in green on the maps. This park extension creates additional queuing space and reduces the grade to climb from Grand Avenue into the park. New signals, with bicycle heads, would be installed for those using the converted lane at Grand Avenue.

Intersection 3: Lakefront Trail in Jane Addams Memorial Park

The third upgraded intersection is the area in the park around the B-Cycle station and ramp to the Ohio Street beach, and where the Lakefront Trail has splits towards Navy Pier and Illinois Street. Some of the path within the Park was widened this month, by adding a narrow, concrete shoulder on what used to be dirt (that flooded easily). Paths inside the park would be widened and the ramp to the beach would be moved to the east. The B-Cycle station and the walls to its west would be moved slightly to the east.

The need to improving conditions on the Lakefront Trail near Navy Pier is obvious, but state and federal tax dollars could be put to better use if the flyover isn't built. We understand that the money used to design the flyover would have been spent in vain if this alternative proposal was constructed instead. But by shelving the flyover plans and instead converting existing infrastructure, the city would save tens of millions of dollars and make the trail safer and more pleasant sooner than later.

View Navy Pier Flyover alternative in a larger map

Addenda

- Join a discussion about this post on The Chainlink
- Download a presentation about the Navy Pier Flyover from February 2011 (.pdf)
- View all the photos that depict the current situation and alternative solution
- * There's a common perception in planning and engineering circles that the alternative which the constructing agency wants usually has already been chosen before the Alternatives Analysis is conducted, and that the agency finds ways to make the other alternatives seem less desirable.

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